



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,355	02/21/2002	Krishnasamy Anandakumar	TI-29773	9762
23494	7590	03/20/2006	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED			PIERRE, MYRIAM	
P O BOX 655474, M/S 3999			ART UNIT	
DALLAS, TX 75265			PAPER NUMBER	

2654

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/081,355	ANANDAKUMAR ET AL.	
	Examiner	Art Unit	
	Myriam Pierre	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 60270264.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 01/09/2006 have been fully considered but they are not persuasive.

Applicant argues that Examiner interpreted "truncation" as encoding. Examiner has pointed that the truncation is part of the encoding process which inherently includes compressing or expanding of frames, depending if it is silent, voiced, or unvoiced, col. 5 lines 49-51; col. 19 lines 44-50; col. 8 lines 23-27. Gersho et al. (6,311,154) do teach truncation.

Applicant argues that Gersho has no suggestion of payout. Examiner respectfully disagrees. Gersho teaches playback, col. 29 lines 26-34 and Gersho et al. have a delay contour which and related to packet transmission, col. 7 lines 19-23. Gersho et al. do suggest payout.

Applicant argues that there is not suggestion of frame expansion in Gersho. Examiner respectfully disagrees. Gersho et al. teach changing the window length, Fig. 7 step B. Gersho et al. further teach compression and expansion, col. 15 lines 23-24 and col. 8 lines 23-27. Gersho et al. do teach frame expansion.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Gersho et al. (6,311,154).

As to claim 1, Gersho et al. teach

deferring truncation (coding) of an active frame (Fig. 8 (encoder) elements 36 and 34, the silence is detected first before the classification of the signal (element 34), then it is encoded (element 42), and col. 5 lines 49-51; col. 19 lines 44-50; col. 8 lines 23-27 thus the truncation or coding of the active frame is deferred);

and truncating a silence frame (col. 14 lines 40-42; col. 19 lines 44-50; col. 8 lines 23-27).

As to claim 2, which depends on claim 1, Gersho et al. teach

said packetized speech includes CELP-encoded frames (Fig. 8 element 42 and col. 2 lines 52-56); and

said truncating a silence frame includes inherently truncating an excitation for said silence frame (Fig. 8 elements 36 and 42)

As to claim 3, which depends on claim 1, Gersho et al. teach

expanding (decoding) an active frame according to a voicing classification for said active frame (Fig. 14 (decoder inherently expands signal) element 10g; col. 5 lines 60-63).

As to claim 4, Gersho et al. teach

classifying a frame as voice (Fig. 14 element 10e) or not (Fig. 14 element 10g);

expanding a voiced frame by a multiple of the pitch of said voice frame (Fig. 14 elements 10g and 10h and col. 28 lines 46-53; col. 15 lines 23-24 and col. 8 lines 23-27).

As to claim 5, which depends on claim 4, Gersho et al. teach  
said frames are CELP-encoded frames (col. 2 lines 52-56)  
said expanding a voice frame includes expanding an excitation for said voice frame  
(based on pitch info, adaptive codebook vector retrieved from codebook (Fig. 14) 10g, generates  
excitation vector which is multiplied by a gain) by a multiple of the pitch of said voiced frame  
(bit streams containing pitch information) (Fig. 14 element 10 h; col. 28 lines 43-55; col. 2 lines  
52-56; bit streams which contain pitch information is used for the adaptive codebook vector to  
retrieve excitation vector which is multiplied by the gain, the multiple of pitch is inherently from  
the bit streams).

As to claim 6, which depends on claim 4, Gersho et al. teach  
said classifying a frame of step (a) classifies an active frame as one of (i) voiced (Fig. 9  
element 42c) (ii) unvoiced (element 42a) or transition (element 42b); and  
expanding an unvoiced frame includes expanding an excitation fro said unvoiced frame  
with a random fixed-codebook vector (col. 11 lines 49-61).

*Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gersho et al. (6,311,154) in view of Maeda et al. (5,839,110).

As to claim 7, Gersho et al. teach

an input for receiving CELP-encoding frames (Fig. 14)

a decoder coupled to said input (Fig. 14 element 10a)

Gersho et al. do not explicitly teach the play-out scheduler coupled to said input.

However, Maeda et al. do teach a play-out scheduler coupled to input (Fig. 1 element 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement Gersho et al.'s speech coding with Maeda et al.'s play-back coupled to said input because Maeda et al. teach that this would provide specific presence or absence of speech used for recording or playback, col. 5 lines 13-21 and col. 2 lines 23-29.

Gersho et al. teach said decoding operable to provide expansion, wherein said expansion is a multiple pitch for said voiced frame (col. 28 lines 42-55; col. 15 lines 23-24 and col. 8 lines 23-27).

Gersho et al. do not explicitly teach decoder providing expansion of voice in response to said play-out scheduler.

However, Maeda et al. do teach decoder providing expansion of voice in response to said play-out scheduler (Fig. 1 element 8 and Fig. 8 elements 83, 6b and 6a; set flag for play-back, col. 10 lines 50-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement Gersho et al.'s speech coding with Maeda et al.'s play-back scheduler because Maeda et al. teach that this would provide preset responses to playback request for user friendliness, thus user is able to have control of recording/playback, Maeda et al., col. 5 lines 13-21 and col. 2 lines 23-29 and col. 10 lines 10-15, lines 34-41.

As to claim 8, which depends on claim 7, Gersho et al. teach decoding operable to provide truncation of a frame (col. 28 lines 42-44 and 56-59).

Gersho et al. do not explicitly teach the response to said play-out scheduler only when said frame s a silence frame.

However, Maeda et al. do teach the response to said play-out scheduler only when said frame s a silence frame (indicate the silent period, compressing/encoding, in the silent state col. 2 lines 23-29)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement Gersho et al.'s speech coding with Maeda et al.'s play-out scheduler because one would record avoid recording silence, because Maeda et al. teach that this would provide indications of silent periods during compressing/encoding means in the silent state, and thus inhibit extraneous silence during playback, col. 2 lines 23-29.

*Conclusion*

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Myriam Pierre whose telephone number is 571-272-7611. The examiner can normally be reached on Monday - Friday from 5:30 a.m. - 2:00p.m.

7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information as to the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR



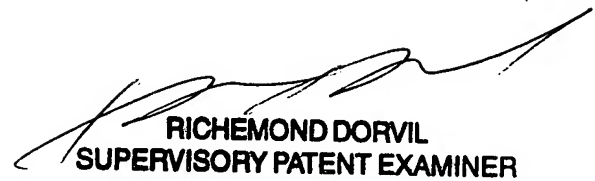
Application/Control Number: 10/081,355

Page 8

Art Unit: 2654

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). 03/15/2006

MP



**RICHEMOND DORVIL**  
**SUPERVISORY PATENT EXAMINER**